

ABSTRACT OF THE DISCLOSURE

By using a data combining portion, the predetermined data is combined with the original image data on a pixel position with an upper limit gray scale value in a direction of increase of the gray scale value and a combined image data is generated. Since the predetermined data is combined outside an extent of the gray scale of the original image data, there is no deterioration of the quality of the original data and a user never perceives the predetermined data combined outside the extent of the grayscale of the original image data. In addition, since the predetermined data is embedded in combined image data in itself encoded by an encoding portion, the predetermined data cannot be separated from the original image data before the encoded combined image data is decoded.